

stream that is the combination of a gas stream that has a swirling movement about a predetermined axis, one gas stream moving straight in the direction of the axis in the inner portion of the swirling stream and another gas stream also moving straight in the direction of the axis the another gas stream wrapping around the swirling stream and the one straight gas stream;

(c) supplying a flow of liquid into the formed gas stream so that the flow of liquid is atomized by the formed gas stream; and

(a) advancing a web of hygroscopic material across the atomized liquid flow.

IN THE CLAIMS

Please cancel claim 1 without prejudice.

Please amend claims 2, 6, 9 and 34-37 as follows(attached hereto are these claims showing the changes made to each of them relative to the version of those claims in the application as filed):

2. (Amended) A method of wetting webs of paper or other hygroscopic material using an atomizing nozzle, comprising:

(a) forming internal to said nozzle a mixed gas stream that is the combination of a gas stream that has a swirling movement about a predetermined axis, one gas stream moving straight in the direction of said axis in the inner portion of the said swirling stream and another gas stream also moving straight in the direction of said axis said another gas stream wrapping around said swirling stream and said one straight gas stream;

(b) supplying a flow of liquid into said formed gas stream so that the flow of liquid is atomized by said formed gas stream; and

- (c) advancing a web of hygroscopic material across the atomized liquid flow.

6. (Amended) A method of wetting webs of paper or other hygroscopic material, comprising:

- (a) arranging at least first and second atomizing nozzles in an array wherein said at least first and second nozzles are adjacent to each other;
- (b) forming internal to each of said at least first and second nozzles a mixed gas stream that is the combination of a gas stream that has a swirling movement about a predetermined axis, one gas stream moving straight in the direction of said axis in the inner portion of the said swirling stream and another gas stream also moving straight in the direction of said axis said another gas stream wrapping around said swirling stream and said one straight gas stream;
- (c) supplying a flow of liquid into said formed gas stream so that the flow of liquid is atomized by said formed gas stream; and
- (d) advancing a web of hygroscopic material across the atomized liquid flow.

9. (Amended) A method of wetting webs of paper or other hygroscopic material using an atomizing nozzle, comprising:

- (a) creating an array of said atomizing nozzles;
- (b) forming internal to each of said nozzles a mixed gas stream that is the combination of a gas stream that has a swirling movement about a predetermined axis, one gas stream moving straight in the direction of said axis in the inner portion of the said swirling stream and another gas stream also moving straight in the direction of said axis said another gas stream wrapping around said swirling stream and said one straight gas stream;
- (c) supplying a flow of liquid into said formed gas stream so that the flow of liquid is atomized by said formed

gas stream; and

(d) advancing a web of hygroscopic material across the atomized liquid flow.

34. (Amended) The method of Claim 2 further comprising adjusting at least one of said swirling gas stream, said one gas stream and said another gas stream in said mixed gas stream so that said atomized liquid flow has a predetermined mass distribution profile.

35. (Amended) The method of Claim 2 wherein said atomizing nozzle is one nozzle in an array of said atomizing nozzles and said method further comprises adjusting in each of said atomizing nozzles in said array at least one of said swirling gas stream, said one gas stream and said another gas stream in said mixed gas stream so that said atomized liquid flow from each of said atomizing nozzles has a predetermined mass distribution profile.

36. (Amended) The method of Claim 6 further comprising adjusting in at least one of said first and second atomizing nozzles at least one of said swirling gas stream, said one gas stream and said another gas stream in said mixed gas stream so that said atomized liquid flow has a predetermined mass distribution profile.

37. (Amended) The method of Claim 9 further comprising adjusting in at least one of said atomizing nozzles in said array at least one of said swirling gas stream, said one gas stream and said another gas stream in said mixed gas stream so that said atomized liquid flow has a predetermined mass distribution profile.

IN THE DRAWING

Please amend the Figure 2 in the application as filed as shown in red in the attached duplicates of that figure.

REMARKS

Applicant has amended the Summary of the Invention in the